

Appl. No. 10/696,812
Examiner: James M Hewitt, Art Unit 3679
In response to the Office Action dated December 1, 2005

Date: March 1, 2006
Attorney Docket No. 10111396

REMARKS

Responsive to the Office Action mailed on December 1, 2005 in the above-referenced application, Applicant respectfully requests amendment of the above-identified application in the manner identified above and that the patent be granted in view of the arguments presented. No new matter has been added by this amendment.

Present Status of Application

The amendment to the specification filed on July 6, 2005 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. Claims 1 and 6 are objected to for informalities. Claims 3 and 9-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,591,437 to Phillips (hereinafter "Phillips"). Claims 1 and 2 are objected to but would be allowable if rewritten to overcome the objection to claim 1. Claims 6-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims.

In this paper, claims 1 and 6 are amended according to the suggestion of the Examiner. The objections to claims 1 and 6 are thereby believed to be overcome. Claim 4 is amended to correct a typographical error. New claims 21 and 22 are added. Support for the new claims can be found in Figs. 8A-8C and pages 13-14 of the application.

Reconsideration of this application is respectfully requested in light of the amendments and the remarks contained below.

Allowable Subject Matter

Applicant thanks the Examiner for his indication in the Office Action that claims 1-2 would be allowable if rewritten to overcome the objection to claim 1 and claims 6-8 would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims.

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Claim 1 has been amended according to the suggestion of the Examiner. It is therefore Applicant's belief that claims 1-3 are now in condition for allowance.

Objection to the Specification

The amendment to the specification filed on July 6, 2005 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. Applicant respectfully traverses the objections for the reasons as follow.

Fig. 8A shows a first switch 85 and a second switch 86. The first switch is moveable between a first orientation (inflate) opening the first valve, a second orientation (air closed) closing the first valve, and a fifth orientation (deflate) opening the first valve. The second switch is movable between a third orientation (deflate) opening the second valve, a fourth orientation (air closed) closing the second valve, and a sixth orientation (inflate) opening the first valve. Fig. 8B shows ears 851 and 852 extending from switch 85 and ears 861 and 862 extending from switch 86. A driving element 87 is disposed such that the ears contact and impel the driving element when moved between orientations so that electrodes 824 and 824' are brought into contact when either switch 85 or 86 is moved to the inflate orientation, or contacts 825 and 825' are brought into contact when either switch 85 or 86 is moved to the deflate orientation. Thus, when the second switch is moved into the deflate orientation, the ear 862 is rotated counterclockwise to impel the driving element left, bringing electrodes 825 and 825' into contact and causing the air pump to operate in the deflation direction. If the first switch is moved to the inflate orientation while the second switch is in the deflate orientation, ear 851 is rotated clockwise to impel the driving element right, bringing electrodes 824 and 824' into contact and causing the air pump to operate in the inflation direction. Furthermore, a person of ordinary skill in the art at the time of the invention would appreciate from the drawings and the context of the disclosure that as ear 851 impelled the driving element right, the driving element would impel ear 862 clockwise, moving switch 86 out of the deflation orientation and into the air closed orientation. In other words, it is inherent to the structure shown in Figs. 8A-8C and described on pages 13-14 of the application that the first switch to be cannot be in the inflate orientation when the second switch is in the deflate orientation, as there is only one fan that is operated in only one of these two directions at any given time.

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Similarly, if the second switch is moved to the inflate orientation, ear 861 is rotated clockwise to impel the driving element right, bringing electrodes 824 and 824' into contact and causing the air pump to operate in the inflation direction. If the first switch is moved to the deflate orientation while the second switch is in the inflate orientation, ear 852 is rotated counterclockwise to impel the driving element left, bringing electrodes 825 and 825' into contact and causing the air pump to operate in the deflation direction. Furthermore, a person of ordinary skill in the art at the time of the invention would appreciate from the drawings and the context of the disclosure that as ear 852 impelled the driving element left, the driving element would impel ear 861 counterclockwise, moving switch 86 out of the inflation orientation and into the air closed orientation.

Similarly, when the first switch is moved to the deflate orientation, ear 852 is rotated in the counterclockwise direction to impel the driving element left, bringing electrodes 825 and 825' into contact and causing the air pump to operate in the deflation direction. If the second switch is moved to the inflate orientation when the first switch is in the deflate orientation, ear 861 is rotated clockwise to impel the driving element right, bringing electrodes 824 and 824' into contact and causing the air pump to operate in the inflation direction. Furthermore, a person of ordinary skill in the art at the time of the invention would appreciate from the drawings and the context of the disclosure that as ear 861 impelled the driving element right, the driving element would impel ear 862 clockwise, moving switch 85 out of the deflate orientation and into the air closed orientation.

Applicant therefore submits that the changes made to the application disclosure are directly or inherently supported by the originally filed specification, drawings and claims as interpreted by one of ordinary skill in the art. Withdrawal of the objection under 35 U.S.C. 132(a) is respectfully requested.

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Rejection Under 35 U.S.C. 112

Claims 3 and 9-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Applicant respectfully traverses the rejections for the reasons as follow.

To satisfy the written description requirement, a patent specification must describe the claimed invention in sufficient detail that one skilled in the art can reasonably conclude that the inventor had possession of the claimed invention. *Moba, B.V. v. Diamond Automation, Inc.*, 325 F.3d 1306, 1319, 66 USPQ2d 1429, 1438 (Fed. Cir. 2003). An applicant shows possession of the claimed invention by describing the claimed invention with all of its limitations using such descriptive means as words, structures, figures, diagrams, and formulas that fully set forth the claimed invention. *Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1572, 41 USPQ2d 1961, 1966 (Fed. Cir. 1997). MPEP 2163.

In the present application, the rejection under 35 U.S.C. 112, first paragraph, has arisen in the context of determining whether claims 3 and 9-20 are supported by the description of the invention in the application as filed. Applicant therefore sets forth below support in the application as filed for claims 3 and 9-20.

Claim 3 recites "wherein the first and second switch comprise a first ear and a second ear respectively, and the second ear is impelled by the slider when the first ear pushes against the slider."

Fig. 8B shows first ear 851 extending from switch 85 and second ear 862 extending from switch 86. A driving element 87 (slider) is disposed such that the ears contact and impel the driving element when moved between orientations so that electrodes 824 and 824' are brought into contact when either switch 85 or 86 is moved to the inflate orientation shown in Fig. 8A, or contacts 825 and 825' are brought into contact when either switch 85 or 86 is moved to the deflate orientation in Fig. 8A. If the first switch is moved to the inflate orientation while the second switch is in the deflate orientation, ear 851 is rotated clockwise to impel the driving element right, bringing electrodes 824 and 824' into contact and causing the air pump to operate

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in the inflation direction. A person of ordinary skill in the art at the time of the invention would appreciate from the drawings and the context of the disclosure that as ear 851 pushes the driving element right, the driving element would impel ear 862 clockwise. Applicant therefore submits that claim 3 finds adequate support in the application as originally filed.

Claim 9 recites "wherein when the first switch is in an Inflate orientation, the first switch is impelled by the slider to an off orientation when the second switch is moved to a deflate orientation."

As shown in Figs. 8A and 8B, when the first switch is moved to the inflate orientation, ear 851 is rotated in the clockwise direction to impel the driving element right, bringing electrodes 824 and 824' into contact and causing the air pump to operate in the inflation direction. If the second switch is moved to the deflate orientation when the first switch is in the inflate orientation, ear 862 is rotated counterclockwise to impel the driving element left, bringing electrodes 825 and 825' into contact and causing the air pump to operate in the deflation direction. A person of ordinary skill in the art at the time of the invention would appreciate from the drawings and the context of the disclosure that as ear 862 impelled the driving element left, the driving element would impel ear 851 counterclockwise, moving switch 85 out of the inflate orientation and into the air closed (off) orientation. Applicant therefore submits that claim 9 finds adequate support in the application as filed.

Claim 10 recites limitations similar to those found in claim 3. Thus, for the same reasons discussed above in connection with claim 3, Applicant submits that claim 10 finds adequate support in the application as originally filed.

Claims 11-20 recite limitations discussed in the previous section in connection with the objection to the amendment of specification. Applicant submits that for the same reasons discussed in detail in connection with the amendment, the limitations found in claims 11-20 find adequate support in the application as originally filed.

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Applicant therefore respectfully requests that the rejections of claims 3 and 9-20 under 35 U.S.C. 112, first paragraph, be withdrawn and the claims passed to issue.

Rejections Under 35 U.S.C. 103(a)

Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Phillips.
Applicant respectfully traverses the rejections for the reasons as follow.

MPEP 2142 reads in part:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaack*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

In connection with the third criteria, MPEP 2143.03 goes on the state:

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

Claim 4 recites inflatable product including a first switch structure, connected to a first valve, wherein the first valve is mechanically opened by the first switch structure, a second switch structure, connected to a second valve, wherein the second valve is mechanically opened by the second switch structure, wherein the first switch structure and second switch structure

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control a pump to operate. Thus, in the inflatable product recited in claim 4, each switch structure controls a valve, and furthermore controls the pump to operate.

In the rejections, the Examiner relies on knob 84a to teach the first switch structure of claim 4, and a reference number "86B" to teach the second switch structure.

Applicant first notes that there is no reference number "86B" illustrated or described in Phillips. Reference number 86 refers to the plurality of valve members shown in Fig. 5 and described in column 3, lines 58-67 of the patent, and is not a switch structure.

Phillips teaches a plurality of knobs 84a-84d and 88. Each of the knobs 84a-84d functions to open or close the respective valve 86 to allow for inflation of a respective pillow 68a-68d. Knob 88, on the other hand, controls the air pump to operate. However, none of knobs 84a-84d or 88 both controls a valve *and* controls the pump to operate, as recited in claim 4.

It is therefore Applicant's belief that even when modified in the manner described by the Examiner, Phillips does not teach or suggest all the limitations of claim 4. For at least this reason, a *prima facie* case of obviousness cannot be established in connection with this claim. Furthermore, as it is Applicant's belief that a *prima facie* case of obviousness is not established for claim 4, the Examiner's arguments in regard to the dependent claims are considered moot and are not addressed here. Allowance of claims 4-10 is respectfully requested.

New Claims 21-22

New claim 21 recites an inflatable product, including a first chamber; a motor; a first valve through which the motor inflates the first chamber a first switch structure, connected to the first valve, wherein ***the first valve is mechanically opened by the first switch structure***; a second chamber; a second valve through which the motor inflates the second chamber; a second switch structure, connected to the second valve, wherein ***the second valve is mechanically opened by the second switch structure; wherein the first switch structure and second switch structure control the motor to operate.***

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For the same reasons discussed in connection with claim 4, it is Applicant's belief that the prior art fails to teach or suggest a first switch structure and a second switch structure mechanically opening a first and second valve, respectively, wherein the first switch structure and second switch structure also control the motor to operate.

New claim 22 recites Inflatable product, including a first chamber; an air pump; a first valve through which the air pump inflates the first chamber; a first switch structure, connected to the first valve, wherein ***the first valve is mechanically opened by the first switch structure***; a second chamber; a second valve through which the air pump inflates the second chamber; a second switch structure, connected to the second valve, wherein ***the second valve is mechanically opened by the second switch structure***; wherein the air pump has a fan and motor for inflating air through the first or second valve; ***wherein the first switch structure and second switch structure control the air pump to operate and open the first or second valve in one step.***

For the same reasons discussed in connection with claim 4, it is Applicant's belief that the prior art fails to teach or suggest a first switch structure and a second switch structure mechanically opening a first and second valve, respectively, wherein the first switch structure and second switch structure also control the air pump to operate and open the first or second valve in one step.

Conclusion

The Applicant believes that the application is now in condition for allowance and respectfully requests so.

Respectfully submitted,



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